

REMARKS

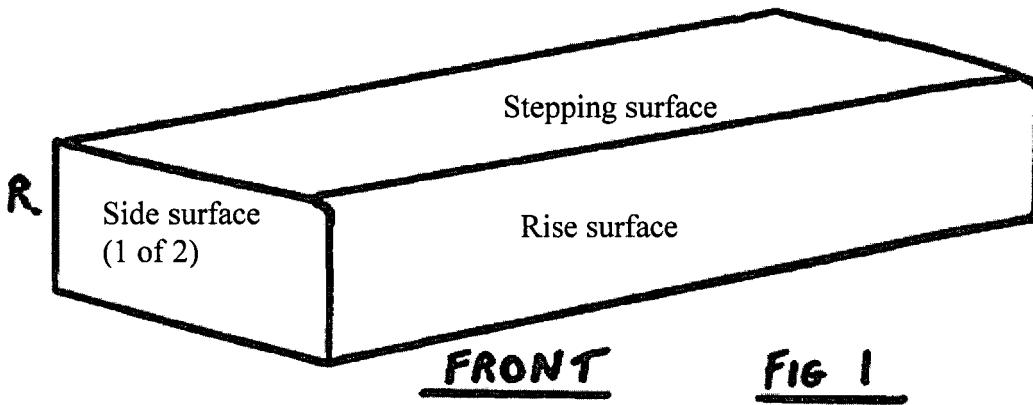
Claims 1, 2 and 4 are pending in the present application. Claims 1 and 2 are rejected. Claims 1 and 2 are herein amended. No new matter has been added.

Applicant's Response to Claim Rejections under 35 U.S.C. §103

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Millar (UK Patent No. GB 2,302,343) in view of Schmidt (U.S. Patent No. 4,951,434) and Bott (U.S. Patent No. 6,082,067).

It is the position of the Office Action that Millar discloses the embodiment as claimed, with the exception of teaching (i) a step formed in a triangular pillar with a rear surface which connects diagonally the stepping surface and the rise surface at respective edges thereof, and (ii) displacement prevention grooves formed in the side surfaces of the block. The Office Action relies on Schmidt to teach (i) and relies on Bott to teach (ii).

Millar is directed at a hollow reinforced concrete step. As illustrated in Figures 1 and 5, the step has four flat surfaces: a stepping surface, a rise surface and two side surfaces generally parallel to each other. Please see the mark up on the following page:



It is noted that in the markup of Millar on page 5 of the Office Action, the surface that indicated as the "rise surface" is actually the hollow rear of the block.

Schmidt is directed at pre-formed stair construction. As illustrated in Figure 1, the stair construction includes steps 12, which have a riser portion 16 and a tread portion 18. Each of the steps also includes two lateral flanges 26. In order to assemble a staircase, multiple stringers 14 are disposed parallel to each other at an angle to the floor. The lateral flanges 26 of each of the individual steps 12 are attached to the stringers 14 through nail holes in the lateral flanges. It is noted that the steps 12 are formed of plastic or a composite material. See column 2, lines 3-10.

Bott is directed at dry stackable block structures. As illustrated in Figure 1 and 2, Bott discloses concrete blocks 10, each having a recess 45 on one side edge and a protrusion 54 on the opposite side edge. However, some concrete blocks 11 only have a recess on one side edge, with the opposite side edge being flat. As illustrated in Figure 11, the blocks 10 and 11 are interlockable when positioned side-by-side to form a wall. Furthermore, as illustrated in Figure

4, the concrete blocks 10 have slightly inclined top and bottom surfaces and are vertically stackable.

In response to the pending rejection, Applicant respectfully submits that the combination of cited art does not disclose or suggest the embodiments as claimed. Claim 1 requires that the concrete blocks have displacement prevention grooves formed in their side surfaces. As a preliminary matter, Applicant herein amends the claim to more clearly recite that the block includes “a pair of side surfaces, each having displacement prevention grooves formed therein.” However, this amendment is merely a rewording for clarity and does not alter the scope of the claims. Furthermore, Applicant herein amends claim 1 in order to move the recitation of a “triangular pillar” into the body of the claim. These amendments do not raise new issues requiring further search or consideration.

As to the merits of the rejection, the Office Action relies on Bott to teach “recesses 45 and 22 in the side edges of the block.” As illustrated in Figure 2, which is a plan view, recess 45 is a recess formed in a side surface of the block. However, as illustrated in Figure 3, which is a side view, recess 22 is a recess formed in a bottom surface of the block. Thus, Bott does not disclose or suggest recesses formed in each of the side surfaces of the block. In fact, Bott specifically teaches away from this by providing a protrusion 54 in the side surface opposite the side surface in which recess 45 is formed. Therefore, Applicant respectfully submits that the combination of cited art does not disclose or suggest the embodiment as claimed.

Furthermore, Applicant respectfully submits that even if, *arguendo*, Bott disclosed a recess in each of the side surfaces, it would not have been obvious to combine the cited art. In Bott, the recess 22 in the bottom of the block and the corresponding projection in the top of the block are to aid in vertical stacking. In building of staircases, vertical stacking is not present, since the blocks of a staircase are staggered. As to the recess 45 and protrusion 54 in the side surfaces, these are to provide for “lateral alignment and interlocking of adjoining block structures.” Column 5, lines 36-38. In stair blocks of the present invention, neither lateral alignment nor interlocking is provided by the displacement prevention grooves. As explained in paragraph [0015], the displacement prevention grooves are only effective to prevent displacement when they are filled with mortar between two abutting blocks. As such, each of the grooves is “female,” and the mortar acts as the “male” link between them. On the other hand, in Bott, one end of the block is “male” and the other end of the block is “female.” Thus, Bott uses an entirely different connection scheme between blocks, and there is no reason why one having ordinary skill in the art would adopt the teachings of Bott in the combination of Millar and Schmidt. Such a combination would undesirably result in projections jutting out of one side of the staircase.

Additionally, Applicant respectfully submits that Bott is non-analogous art. Each of Millar and Schmidt are directed at blocks which form steps of a staircase. However, Bott makes no mention of a staircase. Rather, Bott is directed at blocks which form a wall. Thus, Applicant respectfully submits that Bott is not in the field of endeavor of the inventors of the present invention, since it is directed at wall blocks instead of stair blocks. Additionally, Applicant

respectfully submits that there is no reason why the teaching of Bott would have logically commended itself to the inventor's attention in considering his invention as a whole. Therefore, for at least the above reasons, Applicant respectfully submits that it would not have been obvious to combine the cited art to arrive at the claimed embodiments. Thus, Applicant respectfully submits that the rejection should be withdrawn. Favorable reconsideration is respectfully requested.

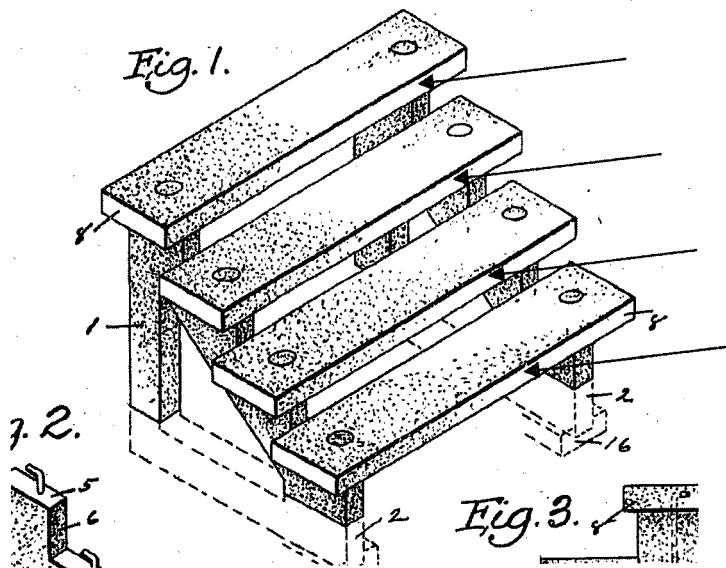
Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Millar in view of Schmidt and Bott, further in view of Buffaloe (U.S. Patent No. 1,985,143).

It is the position of the Office Action that the combination of Millar, Schmidt and Bott discloses the embodiment as claimed, with the exception of another recess for reducing the weight of the block in the rise surface. The Office Action relies on Buffaloe to provide this teaching.

Buffaloe is directed at a precast concrete step. As illustrated in Figures 1-3 and 5, Buffaloe discloses steps 8 attached to a carriage 1 via the end 13 of a rod 11. The steps 8 have a generally rectangular shape. As illustrated in Figure 4, the steps 8 each include a pair of openings 10 for receiving the end 13 of the rod 11, and a bottom side recess 9. See page 1, column 2, lines 13-17.

The Office Action alleges that it would have been obvious to modify the combination of Millar, Schmidt and Bott by including the recess 9. However, Applicant respectfully submits that the combination of cited art does not disclose or suggest the embodiment as claimed. The

recess 9 of Buffaloe is formed on the underside of the stepping surface. In Buffaloe, the rise surface (illustrated by the arrows below) is flat, with no recess.



Therefore, Applicant respectfully submits that the combination of cited art does not disclose or suggest "a second recess for reducing the weight of the block, said second recess being formed in the rise surface." Additionally, Applicant herein amends claim 2 slightly in order to improve clarity. This does not alter the scope of claim 2. Therefore, for at least the above reasons, Applicant respectfully submits that it would not have been obvious to combine the cited art to arrive at the claimed embodiments. Thus, Applicant respectfully submits that the rejection should be withdrawn. Favorable reconsideration is respectfully requested.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Application No.: 10/582,096
Art Unit: 3633

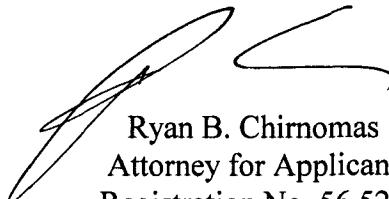
Amendment
Attorney Docket No.: 062626

Should the Examiner deem that any further action by applicant would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicant's undersigned attorney.

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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